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AUTHOR Castro, Felipe G.; Gutierres, Sara

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ABSTRACT

Very little research has examined drug and alcohol use among rural Mexican-Americans, and the few existing studies have yielded mixed results. Some authors have suggested that substance use by Mexican-American youth is similar to that of Anglo youth, but at least one study has shown that Mexican-American females use drugs at a higher rate than do Anglo females. Because rural Mexican-Americans are more likely than urban residents to hold traditional beliefs and values about the family, including distinct gender role definitions, drug use for some young Mexican-American women may be a form of rebellion against oppressive cultural expectations for female behavior. In the past, traditional family values were associated with lower substance use, whereas problematic drug and alcohol use were associated with higher levels of acculturation. Ironically, whereas rural Mexican-American adults are generally less acculturated and more traditional, putting them at low risk for substance abuse, their children may be at high risk as the result of the combined effects of rebellion against traditional behavioral expectations, rapid acculturation, and the experience of generational and cultural conflicts. The existing literature suggests differing levels of risk and cultural orientations requiring different types of preventive interventions to address problems of substance use among various groups of rural Mexican-Americans. Recommendations for future research are presented. (Contains 90 references.) (TD)



Drug and Alcohol Use Among Rural Mexican-Americans

Felipe G. Castro and Sara Gutierres

INTRODUCTION

The purpose of this chapter is to review the literature on drug and alcohol use among rural Mexican-Americans. Given the lack of empirical data on substance use among this population, the review was expanded to include adult alcohol use in rural areas of Mexico and the United States and in urban areas of the United States. This chapter focuses on sociocultural factors (gender, community norms, family traditionalism, and acculturation) associated with drug and alcohol use among rural Mexican-Americans by presenting an integrative analysis of factors related to the risks of drug use. The interrelationship between levels of acculturation and levels of family traditionalism as they relate to the risks of drug abuse is also examined. Finally, suggestions are offered for future research and for preventive interventions applicable to rural Mexican-American populations.

URBAN-RURAL DIALECTIC

What is Rural?

As other chapters have noted, there is no consistent definition of rural. The Bureau of the Census defines rural as "not urban," with urban defined as an incorporated area with at least 2,500 population, or an area contiguous to an extended city with a population of 5,000 or more. A population density of less than 100 persons per square mile is also an indicator of rurality. Researchers studying rural populations have also varied in their definitions of rural. For example, Mata and Castillo (1986) defined rural by size of population and by the presence of an agricultural economy, whereas Chavez and colleagues (1986) included isolation as an important characteristic of their rural communities. Other studies have merely identified a community as rural, with very little information on the criteria used for the definition (Cockerham and Alster 1983; Guinn and Hurley 1976; Swanda and Kahn 1986).

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Urban-Rural Contrasts

Despite variability in definitions, rurality is a concept that may be described by characteristics in three domains: environmental, interpersonal, and intrapersonal. Descriptions based on these domains tend to evoke an image of the idyllic rural setting.

From an environmental perspective and as contrasted with an urban environment, a rural environment can be described as having a lower population density; fewer buildings; fewer service facilities (such as hospitals, markets, and entertainment centers); fewer mass media outlets; and less congestion, pollution, and crime. On the surface, rural environments may appear more serene, although a deep look often reveals that they are more impoverished and isolated—conditions can that evoke stress related to deprivation or low stimulation; in urban environments, by contrast, stress may be more related to congestion and overstimulation.

The interpersonal perspective depicts rural-agrarian social relations and cultural expectations, when contrasted with those in the urban-industrial setting, as being characterized by a slower life pace where people relate to one another in a more honest, wholesome, and genuine manner. However, these close kin-like relations may also foster smalltown politics and provincial or conservative traditional community norms and expectations. In other words, privacy and anonymity may be limited in smalltown settings where everyone knows one another. Moreover, this community vigilance, coupled with strictly defined rules (social norms) for appropriate conduct and with elders' expectations that one will do what is right, may promote compliance with these expectations in some adolescents, while promoting rebellion in others.

From an intrapersonal perspective, certain personal attitudes and value orientations might prevail within a rural environment. A strong value for tradition within rural settings fosters reverence for rituals and customs, along with adherence to conservative religious norms and resistance to change and innovation. Such traditional attitudes may also be characterized by paternalism or emphasis on hierarchical social relations, including well-specified gender roles, strong family cohesion, and a present-time orientation.

Table 1 presents the idyllic characteristics of rural and urban lifestyles as examined for these three domains: environmental, interpersonal, and



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 TABLE 1.
 Idyllic rural-urban characteristics in three domains.

Domain	Characteristic	Rural	Urban
Environmental (What is the ecology like?)	Population density Building density Availability of services and products Mass media Congestion Pollution Crime	Low Low Low Low Low Low	High High High High High High
Interpersonal (What cultural rules govern interpersonal relations?)	Life pace Social relations Social politics Community norms Expectations from family and others Traditional custom and ritual Gender norms Norms regarding alcohol use	Slow Closer/friendly Conservative, paternalistic Narrowly defined/restrictive Compliance with group norms Acceptance and adherence to it Strict and separate gender roles Men may drink, women should not	Fast Distant/aloof Liberal/nonconformist Broadly defined/permissive Personal choice Rejection of it, seek innovation Accept gender role diversity Men and women may drink
Intrapersonal (What are the individual's world view and personal preferences?)	Attitudes towards traditionalism Attitudes towards modernism Religious-secular orientation Group-individual orientation Cooperation-competition Attitudes towards alcohol use Attitudes towards drug use	Value and adhere to it Question and oppose it Strong religious Emphasizes the group Cooperation oriented Use to relate to others Drugs are not acceptable	Question and oppose it Value and endorse it Strong secular Emphasizes the individual Competition oriented Use to reward self for hard work

intrapersonal. In summary, the environmental aspects of rural or urban living involve ecological characteristics such as population density, building density, the availability of services and products, the presence of mass media, congestion, pollution, and crime. The interpersonal aspects of rural or urban living involve cultural/community norms that govern relations between people. These characteristics include: life pace, type of social relations, conservatism in social politics, restrictiveness in community norms, expectations from family and others, values concerning traditional customs and rituals, strict gender norms, and male-oriented norms of alcohol use. The intrapersonal aspects of rural or urban living involve individual values, beliefs, attitudes, and behaviors, including attitudes about traditionalism-modernism, a religious-secular orientation, a group-individual orientation, an orientation toward cooperation-competition, and specific attitudes about drug and alcohol use.

Here it is noted that these characteristics depict the extreme poles of this rural-urban dimension, where actual communities and people will exhibit some, but not all, of the profile of characteristics depicted in this idyllic framework. Only contrasts between actual rural and urban communities that empirically examine these characteristics across all three domains will clarify whether these traits are indeed rural or urban, and whether certain rural traits are somehow protective of drug use and abuse.

For example, a study might examine whether there are lower rates of illicit drug use and abuse among Hispanic adolescents raised in Farmington, New Mexico, as compared with Puerto Rican adolescents who are raised in New York City's Spanish Harlem district. Conventional wisdom suggests that less drug availability (environmental domain), more caring personal relationships (interpersonal domain), and more conservative or religious personal attitudes (intrapersonal domain) would promote lower risks of drug involvement among rural Hispanics. However, despite this conventional wisdom, more empirical data are needed to ascertain whether simply living in a rural environment and being raised in a rural culture truly offer protection from drug use and abuse. Clearly, single-domain environmental models that describe urban-rural status solely according to global indices, such as population density, should be expanded to include cultural aspects of the urban-rural experience that is rurality, as also observed in the interpersonal and intrapersonal domains. From this trilevel perspective, a more complete grasp may be obtained of the ecological, cultural, and psychological dynamics that may influence the risks of drug use and abuse among various rural adolescents, including Mexican-Americans.



Rural Mexican-Americans

Urban-rural distinctions are particularly important among migrant populations for whom migration often proceeds from rural to urban settings. Among Mexican and Mexican-American populations, rural-tourban migration is a frequent occurrence as indigent rural laborers often migrate to urban settings in search of better jobs (Rogler 1994). For many Mexican-Americans, migration from rural to urban settings involves exposure to stressors and acculturative changes that parallel those involved in international migration from Mexico to the United States (Rogler et al. 1991). For example, Ricardo, a young adult born and raised in the rural farming area surrounding Yuma, Arizona, may migrate 180 miles to the northeast to Phoenix, Arizona, a metropolitan area with a population of over 1 million. There he may experience urban acculturative stress in adjusting to new work and living conditions. Similarly, Ricardo's cousin, Roberto, born and raised 25 miles south of Yuma in the rural town of San Luis, Sonora, Mexico, may be exposed to similar urban acculturative stressors upon immigrating illegally to Phoenix. Being undocumented in itself constitutes a major life strain when seeking to survive in the United States. However, other life changes involved in rural-to-urban migration for Roberto and Ricardo are strikingly similar. Moreover, the extent to which Ricardo and Roberto use illicit drugs to cope with the stressors of urban living will influence their future risks of drug dependence and addiction. Despite their difference in nationality, both young adults face similar stressful conflicts: family acculturation conflicts, language-related conflicts, perceived discrimination, and identity conflicts, all of which may operate as risk factors for drug use (Vega et al. 1993b).

For most Hispanics/Latinos,² poverty is a major life strain. In 1991, 15 percent of Hispanic families with full-time workers were living in poverty, compared with 9.9 percent of African-American families and 3.9 percent of non-Hispanic white families (Perez and Martinez 1993). Here the poverty line is defined as, "a family of four with a cash income of \$14,350" (Perez and Martinez 1993). Despite having a strong work ethic, many Hispanic laborers are beset by low educational attainment, labor force discrimination, and underemployment in low-wage, low-skill jobs, many of which do not offer insurance benefits. In addition, many Hispanics are employed in slow or declining-growth industries such as manufacturing, agriculture, and construction, where the risks of job loss due to economic downturns are great (Martinez 1993). Even though only a small proportion of Hispanics are rural farm laborers, Hispanics,



primarily Mexicans and Mexican-Americans, are overrepresented among farmworkers, with Hispanic males and females constituting 34.0 percent and 30.3 percent of farmworkers, respectively (Martinez 1993). Thus, to be Hispanic is often to be poor, underemployed, undereducated, living in a large family, and having limited access to higher income and resources. Although living in a rural community is not always an indicator of poverty, Hispanics who live in rural settings are often among the least well off.

National demographic information shows that the majority of Hispanics living in rural areas are Mexican-Americans who reside in the Southwestern States. The percentage of the total U.S. Hispanic population living in these States is: California, 34.4 percent; Texas, 19.4 percent; Arizona, 3.1 percent; New Mexico, 2.6 percent; and Colorado, 1.9 percent (U.S. Bureau of the Census 1992). Although census data do not list the percent of Hispanics living in rural areas, the percentage of the population that is rural in the aforementioned States is: 7.4 percent in California, 19.7 percent in Texas, 12.5 percent in Arizona, 27.0 percent in New Mexico, and 17.6 percent in Colorado (U.S. Bureau of the Census 1993).

SUBSTANCE USE IN RURAL MEXICO AND THE RURAL UNITED STATES

Studies examining alcohol use in rural Mexico have consistently reported particularly heavy drinking among males (Natera 1980, 1982; Natera et al. 1983; Roizen 1983). Several ethnographic studies have examined the social context of heavy drinking among males in small Mexican towns and have concluded that alcohol availability, smalltown norms, work schedules, and interaction patterns each contribute to this pattern of alcohol consumption (Berruecos and Velasco 1977; DeWalt 1979; Fromm and Maccoby 1970; Kearney 1970; Madsen and Madsen 1979).

Specifically, heavy substance use can occur free of negative sanctions among male laborers because they live in small towns where norms condone heavy drinking, enjoy casual work schedules that allow frequent departures from the job, and belong to peer groups where alcohol consumption has been ritualized as a vehicle for male camaraderie and social bonding. Interestingly, in a study of rural males who migrated to Mexico City, this pattern was abandoned and men reported that they drank with more moderation (Lomnitz 1977). Frequent and heavy alcohol and drug use is discouraged in work settings that are deadline-and task-oriented and where peers do not ritualize daily alcohol and/or drug use. However, findings from these studies differ from those studies



in the United States, which report less drinking in rural and farm areas than in urban areas (Cahalan 1975; Cahalan and Room 1974).

In contrast to the reported heavy drinking of rural Mexican men, rural Mexican women have high abstention rates (approximately 42 percent abstainers). It is interesting to note that rates of abstention for rural Mexican women have been lower than those for urban Mexican women, but are similar to those for U.S. women (approximately 42 percent abstainers). Of rural Mexican women who do consume alcohol, most are light drinkers, consuming alcohol only a few times a year, whereas drinking is a more frequent activity among U.S. women who drink (Roizen 1981, 1983).

In the United States, and perhaps even more so in Mexico, a double standard for alcohol consumption exists for women and men. Traditional Mexican norms for drinking prescribe who may drink, not how to drink. These traditional male-oriented norms dictate that children and women may not drink, but that men may and perhaps even should drink. Moreover, among some traditional Mexican males who are heavy drinkers, the ability to hold one's liquor is seen as a manly trait.

URBAN VERSUS RURAL DRUG USE AMONG MEXICAN-AMERICAN YOUTH

Currently, rates of drug use among rural Mexican-American youth are unclear. In general, school-based surveys document lower rates among Mexican-American as compared with Anglo youth, whereas surveys of inner-city youth show higher rates among Mexican-Americans (Oetting and Beauvais 1990). School-based surveys may underestimate the prevalence of Mexican-American drug use because they do not include information from school dropouts. Other studies have shown that school dropouts, relative to nondropouts, have higher levels of drug use (Bruno and Doscher 1979; Kandel 1975), and Mexican-American youth drop out of school at higher rates than do Anglo youth (Oetting and Beauvais 1990). On the other hand, studies of inner-city youth who live in segregated barrios characterized by disrupted family environments, poverty, unemployment, and deviant role models are also not representative of typical Mexican-American youth. Morales (1984) and Oetting and Beauvais (1990) have indicated that the rates of drug use among Mexican-American youth are probably similar to rates of drug use among Anglo youth, with the exception of heavier use among inner-city Mexican-American youth from the lowest socioeconomic groups.



In general, research on drug use in rural or nonmetropolitan areas has found that rural adolescents report low rates of substance use (Gutierres, unpublished data; Johnston et al. 1987; Kandel et al. 1976; Robertson 1994). Data from the 1992 National Household Survey show that rates of illicit drug use (use past year and use past week) were higher in the large metro (population of one million or more) and small metro (population of 50,000 to 999,999) areas as compared with nonmetro areas (small communities, rural, nonfarm areas with populations below 50,000). Reported lifetime use among rural youth, while lower relative to use among small metro area youth, was somewhat higher than for youth who live in large metro areas. Interestingly, an inverse relationship in rates of use (lifetime, past year, and past week) by urban-rural status has been observed for cigarette smoking, where smoking rates were highest in the rural areas and lowest in large metro areas (National Institute on Drug Abuse 1990).

Another study, the American Drug and Alcohol Survey, examined lifetime prevalence and past month prevalence rates of drug use in rural small towns (populations of 2,500 or less), rural larger towns (populations from 2,500 to 10,000), and nonrural moderate-sized urban communities (populations of 10,000 to 50,000); large metropolitan areas were not represented in this sample (Peters et al. 1992). These investigators found that among eighth graders, for 12 of the 13 drugs examined, including alcohol and cigarettes, the lowest lifetime prevalence rates were observed in the rural small towns. By 12th grade, however, the lowest lifetime prevalence rates were observed in the small towns for only six drugs. These authors suggest that the rural small community environment may have a protective effect for younger children, but the effect may begin to disappear as these rural youth enter adolescence and associate with new peers. The protective isolation that rural communities enjoyed in the past may be changing as mass media and enhanced modes of transportation now offer rural youth exposure to urban fads and lifestyles, including new drug fads, almost contemporaneously with their emergence in metropolitan areas.

The few studies that have examined drug use among rural Mexican-American youth have produced inconsistent results. Guinn and Hurley (1976) compared rural Texas youth with an urban Houston sample and found comparable rates of alcohol use but lower rates of drug use (marijuana, stimulants, barbiturates, hallucinogens, solvents, and opiates) in the rural sample. Cockerham and Alster (1983) found that, compared to a demographically matched sample of Anglo youth, rural Mexican-American youth used marijuana more extensively and had more positive

attitudes toward marijuana use. Finally, Chavez and colleagues (1986) found that, compared to a national sample, 7th to 12th grade Mexican-American youth from a rural southwestern town reported a greater use of alcohol, uppers, tranquilizers, and heroin. Surprisingly, in the study by Chavez and colleagues, the high drug use rates among the Mexican-Americans were primarily influenced by use among females. These authors suggested several possible explanations for this pattern of results, including a differential sex/school dropout rate that could influence the data; dating patterns of young Mexican-American females who may be emulating the drug-taking behavior of older Mexican-American males; or the fact that young females may be directly rebelling against the marianismo stereotype, the image of Mexican females as docile, chaste, and motherly.

The idea that drug-using women from conventional families suffer more for their nonconformity is supported by data for urban heroin-using Chicanas from lower class barrios in East Los Angeles (Moore 1990). Relative to these "cholas," young women from multigenerational drugusing families, heroin-using young women who rebelled against their conventional (traditional) Mexican families were more likely to become street addicts, to have a relationship with an abusive man, and to lack the system of family support available to the cholas. That is, cholas were comparatively less deviant, lived in more organized environments, were less dependent on male partners, had a head start on street life, and, despite their use of heroin, benefited from the social support of family and gang members. Further research is needed to understand how a traditional family environment may inspire conformity among some Mexican-American/Chicana women, while inducing rebellion among others.

SOCIOCULTURAL FACTORS RELATED TO SUBSTANCE USE AMONG RURAL MEXICAN-AMERICANS

Community Norms

Given the broad diversity observed among rural communities, care must be taken in generalizing findings from one rural community to another. A unique community culture is created by the values, norms, customs, and traditions that develop historically within a particular community. Moreover, rural communities differ from one another in ways that urban or suburban communities do not (Edwards 1992). In the low population density southwestern States where most of the rural Mexican-American



population resides, communities are often isolated, with the closest town being another isolated community. Isolation intensifies the influence of local community norms on behavior. Local cultural values regarding substance use may well be important sources of influence that discourage the initiation of drug use (Oetting and Beauvais 1990). Indeed, individual and group substance use patterns are influenced by subcultures within a community, and by the social structures found in the surrounding region (May 1992).

For example, in one south Texas community, Wilkinson (1989) identified six lifestyle subcultures that were based on economic, occupational, linguistic, and educational attributes. Variation in drinking patterns was evident among these six subcultural groups: (1) migrants, (2) farmworkers, (3) working class, (4) farmer/rancher, (5) middle class, and (6) upper class. The farmworkers were more isolated than other groups, and drank either alone or at the home of a friend or relative, whereas the middle-class and migrant groups reported drinking in a variety of locations, including nightclubs and cocktail lounges. Wilkinson concluded that lifestyle subgroups are more useful in predicting substance use patterns than the more global variables of socioeconomic status or occupational prestige. Wilkinson's lifestyle subcultures could be regarded as large peer clusters that emerge naturally within a given community.

Other researchers have observed similar substance use patterns based on regional and lifestyle factors. For example, of three migrant streams that originated in Texas, the Midwestern migrants exhibited the greatest constraints on drinking due to the presence of families and the conservative attitudes of employers. By contrast, the Western and Eastern migrants, who were often single males, drank heavily for recreation because of the isolation of work camps and the lack of transportation to get to other forms of recreation (Trotter 1985).

In another study, drinking patterns and contexts in three California areas were observed. Male migrant farmworkers drank beer continuously on the job and in bars after work, whereas American-born laborers and industrial workers drank after work in neighborhood bars. By contrast, male and female immigrants drank moderately in restaurants that featured traditional music and dancing, whereas higher socioeconomic status Hispanics, who likely were more acculturated, patronized ethnically mixed bars and clubs where their drinking behavior was indistinguishable from that of non-Hispanics (Technical Systems Institute 1977).



Gender

One of the most consistent findings in the literature on substance use among Mexican-Americans is that females, compared to males, use alcohol in lower quantities and frequencies. This is true for women in rural and urban communities, for women in Mexico, for recent immigrants, and for second- and later-generation populations (Markides et al. 1990). These distinctions have been attributed to the differential cultural expectations regarding substance use for women as compared with men. However, these traditional expectations and norms may be changing. Younger Mexican-American women (ages 20 to 39), relative to Mexican-American women ages 40 and over, have been observed to be more likely to consume alcohol (less likely to be an abstainer), to consume alcohol more frequently (days per month), and to consume greater quantities of alcohol (total drinks per month) (Markides et al. 1990). Nonetheless, even among this younger cohort, alcohol consumption remains lower for women than for their male peers.

Gender and ethnic variations in patterns of use have also been reflected in rates of lifetime "Diagnostic and Statistical Manual of Mental Disorders." 4th ed. (DSM-IV) (American Psychiatric Association 1994) disorders for alcohol abuse/dependency and for drug abuse/dependency among urban Mexican-Americans as observed in the Los Angeles Epidemiologic Catchment Area (LA-ECA) study (Karno et al. 1987). For alcohol abuse/dependency, a more pronounced male-female discrepancy was observed among the Mexican-Americans compared with their non-Hispanic white peers. For young Mexican-Americans (ages 18 to 39). lifetime alcohol abuse/dependency rates were 33.0 percent for males and only 5.2 percent for females, whereas for non-Hispanic whites, these rates were 21.6 percent for males and 10.7 percent for females. This gender-by-ethnicity interaction, showing a greater differential in rates of alcohol abuse/dependency by gender among Mexican-Americans, supports the notion that culturally prescribed gender norms for the use of alcohol have been operating among Mexican-Americans.

In contrast, in the LA-ECA study, differential gender norms were not observed in lifetime prevalence of drug abuse/dependency. Instead, this study revealed a main effect for ethnicity. Lifetime rates of drug abuse/dependency for urban Mexican-American males were 9.0 percent and 3.7 percent for females, whereas rates for urban non-Hispanic white males were 24.7 percent and for females, 18.7 percent. The sociocultural factors that govern these lower rates of drug abuse among urban Mexican-Americans relative to their urban Anglo peers are not clear. Nor is it clear



whether a similar pattern in DSM-IV diagnostic prevalence rates would be expected for drug abuse/dependence among rural Mexican-Americans and their Anglo-American peers.

In contrast with the LA-ECA study, smaller indepth studies examining illegal drug use have found that some groups of Mexican-American women have used illicit drugs at equal or higher rates than Mexican-American men or Anglo women and men. These studies have also reported that compared to Mexican-American men and Anglo women, Mexican-American women in substance abuse treatment programs had more extensive criminal involvement, were less likely to be employed, and had the least positive treatment outcomes. Further, the Mexican-American women were more likely to have been involved in criminal activities before initiating drug use, and were more likely than Anglo women to have been initiated into heroin use by an addicted spouse or partner (Anglin et al. 1987a, 1987b; Gutierres and Russo 1993; Hser et al. 1987; Moore and Mata 1981).

In summary, results from these studies suggest that when acting within traditional cultural norms, the behavior of Mexican-American women is influenced by expectations that encourage abstention and limited substance use. However, when Mexican-American women deviate from these traditional norms, negative judgments and sanctions from traditional community residents may leave them with little social support and few opportunities for recovery. For Mexican-American women raised in traditional families, a violation of the norm of abstinence from alcohol and/or drug use may prompt what has been called a Mexican culture abstinence violation effect (Marlatt and Gordon 1985). Here, significant usage beyond the limits of abstention could induce guilt-ridden selfstatements that a woman may as well keep using, since the sacred vow of abstinence has now been violated. Thus, traditional and male-oriented Mexican norms and their prescribed punitive consequences against women might promote intense alcohol and/or drug involvement among some Mexican-American women, particularly among women who live in rural communities where cultural norms and traditionalism are particularly strong.

Traditionalism

Among Mexican-Americans and other Hispanics, the general concept of traditionalism refers to a set of beliefs, attitudes, and values that reflect conservative and often agrarian life views. Within the Hispanic/Spanish-speaking cultures, including the cultures of Mexico, the Caribbean,



Central America, and South America, Catholicism has been a core aspect of culture. Strong religiosity and devotion (particularly among women), belief in family loyalty, loyalty to church and the community, and clear gender role expectations are important aspects of Catholic teachings that have permeated the Hispanic cultures. In addition, ethnicity, as reflected in awareness of one's group as being different from the U.S. middle-class mainstream, is a secular aspect of the experience of being Hispanic. Ethnicity is characterized in part by a group's sense of common history or origin, shared symbols (including religious symbols), and shared standards of behavior (including distinctive values, beliefs, and behavioral norms), all of which are encoded within the language (Harwood 1981). This sharing of common history, beliefs, and norms gives ethnic persons a sense of kinship, affiliation, belonging, and identity that binds members of the group, particularly when facing discrimination from other social groups.

The more specific concept of family traditionalism also has strong rural features, emphasizes family loyalty, and appears to be a core factor within Mexican/Chicano ethnicity. Ramirez has described a general traditionalism-modernism dimension that captures variations in lifestyles including those of Mexicanos, Mexican-Americans, and Chicanos (Ramirez 1991). The traditional end of this continuum is characterized by traits from nine domains: (1) distinct gender role definitions, (2) strong family orientation and loyalty, (3) value of family over individualism, (4) strong sense of community, (5) strong past and present time orientation relative to a future time orientation, (6) reverence for elders, (7) value of traditions and ceremonies, (8) subservience and deference to authority, and (9) spirituality and religiousness. Ramirez asserts that rural environments are most commonly associated with traditional cultural orientations, whereas urban life is associated with modernistic (nontraditional) orientations, although some urban residents can maintain traditional views while rural residents can have modernistic cultural views. According to Ramirez, traditional communities are typically rural and poor. Within them, traditionalism emphasizes strictness in childrearing; separation of gender roles; group cooperation instead of individual competition; lifelong identification with family, community, and culture; and spiritualism as the means of explaining the mysteries of life. By contrast, the modernism prevalent in urban and suburban communities has a more liberal religious orientation emphasizing egalitarianism in childrearing, flexibility in gender role definitions, individualism and competition rather than group cooperation, separation and independence of youth from family early in life, and science as the means of explaining the mysteries of life (Ramirez 1991).



In traditional and low-income communities, the gender differential with respect to abstention from alcohol use is especially high (Cahalan et al. 1969). There is some evidence that factors associated with traditionalism (religiosity) in rural areas may account for high rates of abstention from alcohol use, particularly among women. For example, in a working-class Los Angeles community, Estrada and colleagues (1982) found that for young females, religiosity was the best predictor of low alcohol use, whereas for males, parental and sibling use were the best predictors of high alcohol use. These interpersonal influences may be particularly important in rural areas where traditionalism and religion play prominent roles in socialization.

Similarly, Trotter (1982) examined traditionalism as one explanation for distinctive drinking patterns among Mexican-American and Anglo college students from the Lower Rio Grande Valley in Texas, a poor, rural area. Trotter found that the Mexican-American and Anglo college students drank less than college students from other communities, and suggested that the rural and economically depressed character of the locale explained the conservative drinking patterns for both Mexican-American and Anglo youth.

Acculturation

Acculturation is a process that is particularly important among people who have an immigrant history, or who have been affected by economic, social, or political changes that force migration and/or adaptation to new cultural conditions. For persons of Mexican heritage, whether they are immigrants (Mexican nationals) or natives of the Southwest (Mexican-Americans/Chicanos), acculturation and acculturation conflicts have been salient and recurring aspects of life and living. Acculturation refers to changes in values, attitudes, behaviors, language, and lifestyle induced by the need to adapt to a new cultural environment. The process is often accompanied by conflict and stress as the person struggles with issues of upward or downward social mobility, identity formation and change, and value conflicts. For some Hispanics, discrimination and barriers to upward mobility constitute chronic life strains that can prompt life dissatisfaction and distress, and, perhaps, drug use (Burnam et al. 1987).

Berry (1980) postulated four varieties of acculturation that reflect differing strategic resolutions to the conflicts that surround the process of cultural adaptation: (1) assimilation—relinquishing or rejecting one's native cultural identity following a complete transition into the mainstream society; (2) integration—retaining one's cultural identity while adopting



the cultural ways of the mainstream society; (3) rejection—a self-imposed withdrawal from and rejection of the mainstream society coupled with a strong assertion of one's native ethnic/racial identity as separate from mainstream society; and (4) deculturation—a cultural marginality that involves a loss of one's native cultural identity and a failure to assimilate into the mainstream culture.

For Mexican-American youth, acculturation issues are often important aspects of adolescent development. Acculturation conflicts revolve around ways to become successful in mainstream culture; establishing and maintaining personal and cultural identity, which often involves conflicts over loyalty to one's native cultural heritage; and choice of peer groups, that is, those one chooses as friends (such as only Mexican-Americans, only Anglo Americans, or both). For many Mexican-American/Chicano youth, the norms of the group with which the youth identifies set the stage for future patterns of behavior, including drug and alcohol use (Oetting and Beauvais 1987).

Acculturation and Health. Acculturation has been regarded as an important moderating and mediating variable that is associated with health outcomes among Mexican-Americans and other Hispanics. For example, one study argues that Mexican culture increases depression because it promotes an external locus of control orientation (fatalism). On the other hand, these fatalistic external attributions may protect self-esteem and reduce anxiety by releasing the person from social demands for achievement and success (Mirowski and Ross 1984). In addition, responsibility to the group rather than to oneself may promote depression but relieve anxiety because of the reciprocal social support provided by the family or social group. Even though this study suggests provocative associations between Mexican culture and psychological well-being, it raises questions about the social dynamics that influence the well-being of Mexican-Americans and how these factors might promote drug use and abuse.

In the urban Los Angeles setting, the lifetime prevalence of DSM-IV alcohol abuse/dependence and drug abuse/dependence among Mexican-Americans was found to increase with level of acculturation, even after controlling for the effects of sex, age, and marital status (Burnam et al. 1987). Lifetime prevalence rates per 100 persons for alcohol abuse/dependence for three levels of acculturation (low, medium, and high) were 11.9 percent, 20.6 percent, and 24.2 percent, respectively, and lifetime prevalence rates for drug abuse/dependence were 0.4 percent, 4.3 percent, and 8.3 percent. Moreover, lifetime rates for antisocial



personality disorder by level of acculturation were 2.1 percent, 3.3 percent, and 6.1 percent. Although this study is cross-sectional in nature, the results suggest that for adult urban Mexican-Americans the risks of antisocial conduct that include problem use of alcohol and drugs increases with level of acculturation. Similar patterns might be expected for rural Mexican-Americans.

The effects of acculturation on patterns of alcohol consumption among Mexican-Americans also appear to differ by gender (Gilbert and Cervantes 1986). Gilbert (1987) noted that the drinking behavior of Mexican-American women has shown increasing similarity to the drinking patterns of women in the general U.S. population. This suggests that the drinking behavior of Mexican-American women is modified by culture contact and greater integration into the social structure that shapes the drinking behavior of most U.S. women. Several empirical studies have also found support for this notion. Roizen (1983) reported that successive generations of Mexican-American women have moved out of the lowest categories of drinking frequency and have moved into the middle categories (occasional and infrequent drinking). However, even by the third generation, these women were not comparable to the general U.S. population of women. Other studies have shown a generational decline in rates of abstention (Caetano 1986; Gilbert 1985a, 1987) in connection with growing liberal attitudes toward alcohol consumption among young and middle-class Mexican-American females (Gilbert 1984, 1985a, 1985b; Trotter 1985).

A study of Mexican-American and Anglo women in U.S.-Mexico border towns found a linear relationship between education and level of alcohol consumption for Mexican-American women (Holck et al. 1984). Further, when education was held constant, the differences in consumption patterns between Mexican-American and Anglo women all but disappeared. Caetano and Medina-Mora (1986) found an interaction between acculturation levels and educational levels, such that at each educational level, the more acculturated Mexican-American women were the more likely to drink and to drink in greater quantities and frequency. Moreover, level of acculturation was found to be positively related to levels of alcohol consumption among younger (ages 20 to 39) Mexican-American women, but not among older women, and not among adult Mexican-American men of all ages (Markides et al. 1990). Thus, it appears that many of the role-related and socioeconomic factors connected with increasing alcohol consumption among the general population of U.S. women may also apply to Mexican-American women, particularly as they acculturate to the norms of the U.S. core cultures.



Some data suggest, however, that factors other than acculturation may also be important in understanding Mexican-American female substance use. Gilbert (1987) noted an especially high rate of abstention in a sample of immigrant Mexican women, higher even than for women still residing in Mexico. Gilbert speculated that women who had newly immigrated to the United States were isolated from family and friends and from the familial and festive social settings where alcohol consumption was sanctioned. In addition, Holck and colleagues (1984) found that Mexicanas (those women most closely identified with Mexico) were significantly more likely to be abstainers than Chicanas (U.S.-born, bicultural, and more acculturated Mexican-American women), and these differences remained even when level of education was controlled.

A TRADITIONAL VALUE ORIENTATION: MIGHT IT BE PROTECTIVE?

As noted previously, Mexican family traditionalism has its roots in rural/agrarian family life where family survival required strong loyalty and responsibility to the family, and where distinct gender roles dictated the farming and domestic responsibilities of males and females, respectively. Furthermore, Catholicism prescribed an abiding faith in God and the church, and, through the church, a sense of community where families were responsible for helping one another. Church and family rituals, including baptisms, quinceñeras (15th birthday celebrations of a young woman's growth toward adulthood), birthday, and fiesta celebrations (e.g., las posadas, or Christmas celebrations of Joseph and Mary's finding shelter in a manger, where they were visited by the three wise men) served to affirm family cohesion, kinship ties, and community unity (Falicov 1982). This family and community bonding (Oetting 1992) fostered a series of close and supportive relationships with parents, nuclear and extended family members, and other members of the community. Each of these relationships may have discouraged drug use. Evidence in support of the protective influence of familial ties that communicate sanctions against drug use has been observed (Oetting and Beauvais 1987; Vega et al. 1993b). Family bonds may discourage adolescent drug use if these bonds promote respect and obedience for the wishes and advice of elders and/or emphasize the youth's responsibility to the family or the community.



Hypotheses and Framework for Studying Drug Use Among Rural Mexican-Americans

Hypothesis on Acculturative Stress From Rural-Urban Migration. Drug-use has been conceptualized as a maladaptive coping response to stressful conditions such as acculturation (Schinke et al. 1988; Shiffman and Wills 1985). Moreover, differential rates of acculturation between Hispanic youth and their parents promote intergenerational conflicts that evolve from accelerated acculturation and the development of antitraditional attitudes among Hispanic adolescents and the reactive efforts of the Hispanic parents who seek to enforce traditional values, efforts that in turn escalate into family conflict (Szapocznik and Kurtines 1989; Vega et al. 1993a). To address these family system issues, brief strategic family therapy (BSTF) has been developed. This therapeutic approach emphasizes family systems restructuring and sensitivity to Hispanic cultural issues. Whereas some agree that acculturation conflict occurs within Hispanic families, others argue that this view lacks specificity because many Hispanic families undergo acculturation stress but not all adolescents within these families turn to drug abuse or other problem behaviors to cope with this stress.

Hypothesis on Rebellion Against Traditions. The hypothesis on rebellion against traditions proposes that independent from acculturative stress, youths who disagree with or reject traditional norms may disengage from the family unit and affiliate with deviant peers, increasing their likelihood of cigarette, alcohol, and illicit drug use. Particularly within the most conservative of Mexican families, where adolescent and primarily young females may complain about being stifled by strict family rules, rebellious acting-out behavior could take a variety of forms, including the purposive use of alcohol and illicit drugs (Castro et al. 1987).

A Schema Involving Acculturation and Family Traditionalism. Figure 1 presents a two-factor schema that depicts relationships between acculturation (low, high) and family traditionalism (low, high). The first factor, acculturation, is measured by the General Acculturation Index (GAI) where low acculturation is characterized by: (1) being Spanishlanguage dominant in speech and reading, (2) being raised in Latin America, (3) maintaining Hispanic/Latino friends almost exclusively, and (4) having pride in being a Latino/Hispanic (see appendix A). The 5-item GAI was adopted from the Acculturation Rating Scale for Mexican-Americans (ARSMA) (Cuellar et al. 1980), and for a community sample of 671 Hispanic women exhibits good internal consistency, with a



Cronbach's coefficient of $\alpha = 0.78$ (Balcazar 1995). GAI values of 1.00 to 2.39 identify less acculturated individuals, whereas higher values identify more acculturated individuals: bilingual/bicultural individuals (2.40 to 3.69) and highly acculturated individuals (3.70 to 5.00).

The second factor, family traditionalism, is presented as an orthogonal dimension to acculturation. High Mexican family traditionalism is characterized by themes of: (1) closeness, loyalty, and a sense of responsibility towards the family; (2) respect and reverence towards elders; and (3) reverence for traditions as sources of life meaning and sense of community (see appendix B).

Items describing Mexican family traditional and rural values have also been examined in a community sample of 442 Hispanic women. These items form two scales: a family traditionalism scale (7 items, $\alpha = 0.67$), and a rural preferences scale (6 items, $\alpha = 0.69$). Family traditionalism scale values of 1.00 to 4.49 identify less traditional individuals, whereas values of 4.50 to 5.00 identify more traditional individuals. For the rural preferences scale, values of 1.00 to 3.49 identify individuals with a lower preference for the rural lifestyle, whereas values of 3.50 to 5.00 identify individuals with a higher preference for the rural lifestyle.

For this sample, family traditionalism was uncorrelated with level of acculturation (r = -0.02), indicating that conservative, traditional Mexican family values can be observed across all levels of acculturation. By contrast, rural preferences were inversely related to level of acculturation (r = -0.33, p < 0.001) indicating that stronger rural preferences are observed among the less acculturated women (r = -0.33). Stronger rural preferences were positively associated with stronger family traditionalism (r = +0.34, p < 0.001), indicating that stronger family traditionalism occurs among individuals who prefer the rural lifestyle. As depicted by the two-factor schema, these combinations present interesting possibilities for future studies of the relationship between family traditionalism and acculturation (and rural preferences and acculturation) as these may relate to levels of drug and alcohol use and abuse among Mexican-Americans and other Hispanics.

Characteristics of the four acculturation-family traditionalism subgroups enumerated by this schema can be discussed in relation to drug use.³ First, group I, the low acculturation, low family traditionalism group, is expected to exhibit a relatively moderate risk for drug use under the assumption that the less acculturated are at lower risk than the more acculturated, whereas any protective effects of family traditionalism



	High	II Lowest risk	III Low-to-moderate risk
Family traditionalism	Low	I Moderate risk	IV Highest risk
		Low	High
		Accu	lturation

FIGURE 1. Schema of acculturation-family traditionalism subgroups.

would not be expected to operate in this low family traditionalism group. By contrast, group II, the less acculturated, high family traditionalism group, is postulated to benefit from the protective effects of both factors and thus to be at lowest risk.

Group III, the high acculturation, high family traditionalism group, is expected to be at low-to-moderate risk. Although strong traditional family values could promote drug avoidance, this effect would be countered by the greater (high acculturation) exposure to mainstream Anglo-American values and factors associated with higher rates of drug use. Finally, the high acculturation, low family traditionalism group, group IV, is expected to be at a relatively highest risk through exposure to mainstream culture and low acceptance of traditional family values.

Although these two factors, acculturation and family traditionalism and their interactions, are not the sole determinants of illicit drug use, their relative contribution to the problem could be assessed through holding other factors constant while testing these postulated relationships. Similar analyses can also be conducted for relationships postulated between the factors of acculturation and rural preferences.

SOME CONCLUSIONS

In sum, very little research has examined drug and alcohol use among rural Mexican-Americans. Those studies that have looked at alcohol use in rural Mexico have found that men were most likely to be heavy consumers of alcohol, whereas women were most likely to abstain from alcohol use. As rural Mexican men move into Mexican cities, alcohol use appears to decline,



a pattern opposite from that of the United States, where studies show less alcohol consumption in rural and farm areas than in urban settings.

Studies examining drug and alcohol use among rural Mexican-American youth have yielded mixed results. Some authors have suggested that substance use by Mexican-American youth is similar to that of Anglo youth, but at least one study has shown that Mexican-American females use drugs at a higher rate than do Anglo females. Because rural Mexican-Americans are more likely than urban residents to hold traditional beliefs and values about the family, including distinct gender role definitions, a reaction against traditionalism may prompt an orientation towards acting-out behaviors, including the use of illicit drugs. One explanation for this finding is that drug use for some young Mexican-American women may be a form of rebellion against oppressive traditional cultural expectations for female behavior.

Family traditionalism and acculturation and the interactions of the two factors may be important in understanding drug use among rural Mexican-Americans. In the past, traditional family values were associated with lower substance use, whereas problematic drug and alcohol use was associated with higher levels of acculturation. Data have shown that these measures of family traditionalism and acculturation are orthogonal (independent and uncorrelated), suggesting the utility of a two-factor schema for examining risks for substance abuse (see figure 1). Ironically, whereas rural Mexican-American adults are generally less acculturated and more traditional, putting them at low risk for substance abuse, their children may be at high risk as the result of the combined effects of rebellion against traditional behavioral expectations, rapid acculturation, and the experience of generational and cultural conflicts. The existing literature suggests differing levels of risk and cultural orientations that may prompt the need for differing types of preventive intervention approaches to address problems of substance use among various groups of rural Mexican-Americans.

PREVENTION INTERVENTION APPROACHES

Community Programs

For population changes to occur in substance use, it appears that concurrent structural change must occur within several domains: familial, religious, social, economic, judicial, educational, and health care. The occurrence of healthy change and its maintenance will depend



on promoting changes in values and on related shifts in the behavior of primary social groups. For adolescents, the strategy of building supportive local community environments has been partially effective in reducing academic failure (Felner et al. 1982), reducing teen pregnancy (Vincent et al. 1987), preventing involvement in the juvenile justice system (Davidson et al. 1987), and preventing drug use (Pentz et al. 1989).

In rural areas, the community-based approach may best focus on the educational system. Small rural schools are often the activity centers for communities, and given their small enrollments they are better able to monitor student behaviors when compared with large urban or suburban schools. However, resistance to developing formal prevention has been common in rural schools (Dresser et al. 1990), although interest has existed in developing informal problem-management systems. Moreover, within rural schools, program development can be inhibited by community politics, the absence of parent organizations, and limited access to professional resources and treatment centers.

Self-Concept—Ethnic Identity

Although machismo is often cited as an explanation for maladaptive male drinking practices, Lex (1987) has pointed out that the original positive concept of machismo has been distorted in a negative fashion to now represent masculine entitlement, sexual exploitation, and toughness, including the right to drink, especially as a reward for earning a living. It is important to remind the new generation of Mexican-American youth that the original Mexican concept of machismo was associated with the more positive male traits of personal autonomy, dignity, strength, honor, respect, and responsibility as a family provider. Even though refusal to drink may prompt criticism from some males, undignified drunkenness universally prompts criticism from Mexican-Americans, both male and female. Being a borracho (a drunkard) or a droga adicto (a drug addict) is strongly condemned in almost all sectors of the Mexican-American community (Falicov 1982). Culturally relevant preventive interventions for Mexican-American/Chicano youth that focus on self-concept/selfesteem and values clarification should include issues of ethnic identity, the positive aspects of machismo and marianismo, and the incompatibility of illicit drug use with mature and culturally responsible and respectable male and female gender roles (Castro et al. 1991).

Moreover, multicultural identification, as described by orthogonal cultural identification theory (Oetting and Beauvais 1991), suggests that youth can successfully identify with two, three, or more different cultures



without compromising their native-culture identity. Strong cultural identification is postulated to serve as a source of inner strength and stability and has been associated with strong self-esteem and school adjustment. Although ethnic identification may exert some protective effects against drug use, it is not uniquely protective, and its protective effects are influenced by other contextual factors that include parental attitudes towards drug use, drug use among the youth's peer reference group, and environmental factors (Oetting and Beauvais 1991).

For Mexican-American rural youth, value orientations that may compete with drug abuse must emphasize cultural messages that promote (1) pride in self as a Chicano/Mexican-American, (2) responsibility to family as the true indicator of being a genuine hombre or mujer (real man or woman), and (3) a responsibility to contribute to one's community and to one's people. This cultural sense of mission that promotes traditional core culture values might prompt drug avoidance among Mexican-American/Chicano youths (Castro et al. 1994). Community research with at-risk Mexican-American youths, both rural and urban, could serve to verify the validity of these notions as they apply to culturally effective preventive interventions for Mexican-American youths.

Skill Building

From a stress-coping perspective, skill building enables youth to engage the environment more effectively through developing skills to deal with stressful situations (Emshoff and Moeti 1987; Pedro-Caroll and Cowen 1987), skills for making better decisions, and social skills to refuse pressure to use drugs (Botvin et al. 1984; Flay et al. 1985).

The life skills training (LST) approach (Botvin and Dusenbury 1987) has emphasized increasing generalized social competencies as well as increasing competencies specific to drug avoidance. LST includes skills development in the areas of assertiveness, decisionmaking, skills efficacy, relaxation, communications, and interpersonal relations. It also includes drug education to increase knowledge about cigarette smoking, alcohol, and marijuana use; changing attitudes; and changing normative expectations regarding the use of these substances (Botvin et al. 1990). Effective skills training that is culturally relevant for rural Mexican-Americans will need to consider: (1) their cultural value orientations and needs as related to appropriate assertiveness, particularly in the face of traditional gender role expectations; (2) modes of decisionmaking that consider the wishes of elders and family; and (3) communication and interpersonal skills that emphasize family dynamics instead of solely the wishes of the individual.



Further research is needed to evaluate the manner in which skillstraining interventions should be modified to make them culturally relevant and appropriate for various subpopulations of Mexican-Americans.

FUTURE RESEARCH

The scarcity of research on rural Mexican-Americans and other rural Hispanics, and the conclusions drawn from the literature regarding community norms, gender roles and expectations, traditionalism, and acculturation, suggests several studies.

A need exists for longitudinal studies to determine the social and psychological risk factors that prompt drug experimentation and progression to drug abuse among rural Mexican-Americans and other rural Hispanic males and females. Based on the limited information obtained from earlier studies with rural populations, it appears that solely examining the ecological aspects of rural life, such as low population size or isolation, may not clarify how the composite of rural conditions might safeguard against drug and alcohol use. Studies that use the broader concept of rurality might be more useful, where examination of interpersonal and intrapersonal characteristics of the rural lifestyle may yield more potent factors that are associated with patterns of drug and alcohol use. Moreover, these studies should examine subgroups of Mexican-Americans as depicted in the acculturation-family traditionalism schema, and the differential effects of these factors for male and female adolescents and young adults. Here also, the concept of family traditionalism should be distinguished from the concept of rural preference or orientation. Clear measures of these related but conceptually distinct constructs should be further developed and used in studies that examine their hypothesized relations to patterns of drug and alcohol use.

There is also a need for studies that examine both protective and risk-inducing effects of various aspects of family traditionalism. For example, strong family orientation and loyalty and a strong mission to contribute to the community may promote drug avoidance. On the other hand, imposed subservience and deference to authority, particularly when introduced by elders in a punitive or forceful fashion, may incite rebelliousness and reactive drug use among some Mexican-American adolescents, particularly among females, whereas identification with the original positive concepts of machismo and marianismo may serve to discourage drug use. In addition, the possible role of a cooperative



family orientation (relative to a competitive, individualistic orientation) in reducing the risks of drug use and abuse raises interesting questions and promotes speculative answers about the adaptive value of both orientations. These provocative notions need empirical testing. In short, not all aspects of family traditionalism are likely to be adaptive for effective coping in either modern urban or rural environments. Isolating the adaptive aspects of traditionalism, those that do promote drug avoidance, is another potential area of interesting research with rural Mexican-Americans.

Finally, dual qualitative-quantitative studies of prevention interventions are needed (Castro et al. 1994). Quantitative approaches offer accuracy in the measurement of important constructs and facilitate deductive hypothesis testing. In contrast, qualitative approaches provide depth and richness to the understanding of important constructs, and through integrative inductive analyses help generate new hypotheses. Cultural studies designed to capture the strengths of both approaches are needed. These studies should examine the effects of culturally oriented intervention components such as self-concept/self-esteem, values clarification, and culturally appropriate skills training that may induce adaptive changes in cognitions (attitudes, normative expectations, behavioral intentions) and in drug use and drug avoidance. Ethnographic approaches including focus groups should be used to examine the process by which various prevention/intervention components influence putative mediators of drug-using and drug-avoidant behaviors. These mediators include family traditionalism, self-concept, self-efficacy, ethnic pride, family loyalty, family bonding, and bonding with peers. Ethnographic approaches should also be used to examine contextual factors such as economic deprivation, family conflict, conflicting messages from peers and family, and related aspects of acculturation and urbanization as these may operate as barriers to drug avoidance.

Much interesting and needed research can be conducted with rural Mexican-Americans and other Hispanic populations, particularly in relation to the proposed schema, the constructs, the issues, and the questions posed in this chapter.

NOTES

1. The term "Mexican-American" is used primarily; the authors also recognize and use the terms "Chicano" for males and "Chicana" for females interchangeably with Mexican-American.



- 2. The terms "Hispanics" and "Latinos" for males and "Latinas" for females are used interchangeably. Hispanic and Latino are the generic terms for Latin-American residents of the United States, both native and foreign born. Hispanics/Latinos include native subgroups such as Mexican-Americans, Puerto Ricans, and Cuban Americans, as well as immigrants from Mexico and from other Latin American countries, both documented and undocumented.
- 3. The authors recognize that most acculturation analyses identify three levels or groups: (1) low acculturated, (2) bilingual/bicultural, and (3) high acculturated. However, for maximum simplicity in conceptualization, data analysis, and program development, a 2 x 2 schema is presented that consists of two levels (low and high) for each of two factors: acculturation and family traditionalism.

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AUTHORS

Felipe G. Castro, M.S.W., Ph.D. Associate Professor Department of Psychology and Director Hispanic Research Center Arizona State University Tempe, AZ 85287-2702

Sara Gutierres, Ph.D. Assistant Professor Social and Behavioral Sciences Arizona State University - West Phoenix, AZ 85069-7100





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